

Remarks

Claims 1-19 are pending in the application, with claims 1, 6, 11, and 16 being the independent claims. Based on the following remarks, Applicants respectfully request that all outstanding objections and rejections be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

In the current Office Action, claims 1-5 and 16-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,303,957 B1 to Ohwa (hereinafter, "Ohwa") in view of U.S. Patent No. 6,351,020 B1 to Tarabbia *et al.* (hereinafter, "Tarabbia"). Claims 6-15 were rejected as being unpatentable over Ohwa in view of Tarabbia, Applicant-admitted art, and U.S. Patent No. 4,335,359 to Kriedt *et al.* (hereinafter, "Kriedt"). Applicants respectfully traverse these rejections.

As stated on page 3 of the Office Action, Ohwa fails to teach or suggest "a P⁺ gate electrode formed over said thick oxide," as is claimed in independent claim 1, for example. Ohwa teaches an N⁺ doped gate electrode paired with P⁺ doped source/drain terminals (FIG. 21), ***which clearly teaches away from Applicants' claimed invention.***

Also on page 3, the current Office Action states that Tarabbia teaches "a MOS capacitor structure ... formed with both an N-type capacitor and P-type capacitor such that a 'cumulative' capacitor is acquired," and that "the top plate of the p-type capacitor is heavily doped with a p-type impurity and the top plate of the n-type capacitor is heavily doped with an n-type impurity." Applicants submit that Tarabbia teaches a P⁺ doped gate electrode

paired with N⁺ doped source/drain terminals, *which again clearly teaches away from Applicants' claimed invention.*

The Office Action further states on page 3 that the motivation to combine Ohwa with Tarabbia's P⁺ gate electrode is that "Tarabbia teaches that a MOS capacitor structure having an N-type capacitor and a P-type capacitor would provide a 'cumulative' capacitor structure that allows improved control over its linearity characteristics." To the contrary, Applicants submit that Tarabbia's disclosure of its "cumulative" capacitor structure, which includes multiple capacitors, and advantages of such *do not suggest* the use of a P⁺ doped gate electrode in the single capacitor of the present invention. Tarabbia does not provide any motivation for the alleged combination to overcome the negative teachings of Ohwa. Therefore, the differences between the subject matter sought to be patented and the prior art are *not* such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains, as would otherwise be required for a rejection under 35 U.S.C. §103(a). To the contrary, it would not have been obvious for one of ordinary skill in the art to combine the teachings of Ohwa and Tarabbia to arrive at the presently claimed invention.

For at least the reasons stated above, independent claims 1, 6, 11, and 16, and the claims that depend therefrom (claims 2-5, 7-10, 12-15, and 17-19, respectively), are patentable over the cited art. Applicants respectfully request that the rejections to these claims be withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Donald J. Featherstone
Attorney for Applicants
Registration No. 33,876

Date: 11/5/03

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

SKGF_DC1:185980.1